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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
PRCT, NATHAN E				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/686,521

Applicant(s)

CHUNG ET AL.

Examiner

NATHAN PRICE

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008 and 21 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 02/17/2009; 11/14/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to communications received 14 November 2008 and 21 January 2009. Claims 1 – 30 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1 – 30 have been considered but are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

3. Reference AG (the second NPL document) on the IDS received 17 February 2009 has not been considered because the document is not in English (see 37 CFR 1.98(a)(3)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 9, 19 – 22, 25 – 27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa; Koji et al. (US 6580870 B1; “Kanazawa”) in view of Jones et al. (US 20030220984 A1; “Jones”).

5. As to claim 1, Kanazawa teaches an apparatus for reproducing audio video (AV) data using a markup document in an interactive mode selected by a user of the apparatus, comprising:

a buffer to buffer the markup document to enable the apparatus to reproduce the AV data in the interactive mode selected by the user (col. 15 lines 34 – 56; col. 17 lines 31 – 38); and

a buffer manager to manage the buffer to preload the markup document, the buffering state information being used by the apparatus in reproducing the AV data in the interactive mode selected by the user (col. 15 lines 34 – 56; col. 17 line 53 – col. 18 line 12).

6. Kanazawa fails to specifically teach “output buffering state information of the buffer in response to a report signal” as claimed. However, Jones teaches output buffering state information of the buffer in response to a report signal (¶¶66, 68). It would have been obvious to one of ordinary skill in the art at the time Applicant’s invention was made to combine these teachings because Kanazawa teaches identifying the buffering state and Jones teaches a way to enable identification of the buffering state that can be used when implementing the disclosure of Kanazawa.

7. As to claim 2, Jones teaches a content decoder to interpret the markup document and output the report signal (§§66, 68);

wherein the buffer manager informs the content decoder of the buffering state information of the buffer in response to the report signal (§§66, 68).

8. As to claim 3, Jones teaches the content decoder generates the report signal using an application program interface (API) (§§66, 68).

9. As to claim 4, Jones teaches the API notifies the content decoder of whether preloading of the markup document has succeeded or failed, or whether the markup document is still being loaded.

10. As to claim 5, although the specific values of 0, 1 and 2 are not taught, Jones teaches the API returns a value indicating the preloading of the markup document has succeeded, returns a value indicating the preloading of the markup document has failed, and returns a value indicating the markup document is still being loaded (§§ 66, 68).

11. As to claim 6, Jones teaches the content decoder generates the report signal using an API comprising a file path and/or an attribute of the markup document as a parameter (§§66, 68).

12. As to claim 7, Jones teaches the content decoder generates the report signal using an [obj].isCached() API (¶66, 68) and Kanazawa teaches URL is a parameter indicating a file path of the markup document, and resType is a parameter indicating an attribute of the markup document (col. 17 line 53 – col. 18 line 12).

13. As to claim 8, Jones teaches the buffer manager informs the content decoder of a buffering state of the markup document using an API (¶66, 68).

14. As to claim 9, Kanazawa teaches a content decoder to interpret the markup document; wherein the buffer manager transfers the markup document from the buffer to the content decoder in response to a reproduce signal (col. 15 lines 34 – 56; col. 17 lines 31 – 38).

15. As to claim 19, Kanazawa teaches an apparatus for controlling a buffer to buffer a markup document to reproduce audio video (AV) data in an interactive mode selected by a user of the apparatus, the apparatus comprising:

an electronic component (Fig. 1);

a buffer manager to manage the buffer to preload the markup document to enable the apparatus to reproduce the AV data in the interactive mode selected by the user, and output information of the buffer comprising buffering information of the markup document (col. 15 lines 34 – 56; col. 17 lines 31 – 38);

wherein the buffering information is used by the apparatus in reproducing the AV data in the interactive mode selected by the user (col. 15 lines 34 – 56; col. 17 lines 31 – 38).

16. Kanazawa fails to specifically teach the buffering information comprises indicating that preloading of the markup document has *succeeded, failed or still being conducted*.

17. However, Jones teaches the buffering information comprises:

information indicating that preloading of the markup document has succeeded (¶66, 68);

information indicating that the preloading of the markup document has failed (¶66, 68); and

information indicating that the preloading of the markup document is still being conducted (¶66, 68).

18. As to claim 20, Jones teaches the buffer manager outputs the information of the buffer using an application program interface (API) (¶66, 68).

19. As to claim 21, Jones teaches the information of the buffer further comprises information indicating whether a command to preload the markup document has been successfully received (¶66, 68).

20. As to claim 22, Jones teaches the information of the buffer further comprises information indicating whether preloading of the markup document has been completed (¶¶66, 68).

21. As to claim 25, Jones teaches a reader to read a preload-list file (¶¶66, 68); wherein the buffer manager manages the buffer to preload the markup document based on contents of the preload-list file (¶¶66, 68). Kanazawa teaches preloading occurs before the reproducing of the AV data begins in the interactive mode selected by the user (col. 15 lines 34 – 56; col. 17 lines 31 – 38).

22. As to claim 26, Jones teaches the preload-list file contains information identifying at least one markup document that is to be preloaded into the buffer under control of the buffer manager before the reproducing of the AV data begins in the interactive mode selected by the user (¶¶66, 68).

23. As to claim 27, Jones teaches the reader reads the preload-list file from an information storage medium (¶¶36, 37, 66).

24. As to claim 29, Kanazawa teaches the physical element electronic component is a computer (Fig. 1).

25. As to claim 30, Kanazawa teaches the buffer manager is implemented by instructions performed by the computer (Fig. 1; col. 15 lines 34 – 56; col. 17 lines 31 – 38).

26. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Jones as applied to claim 1 above, and further in view of Applicant's admitted prior art.

27. As to claim 28, Kanazawa teaches the user of the apparatus selects between the interactive mode and the non interactive video mode (col. 15 lines 34 – 45) and a non interactive video mode in which the AV data is displayed in the same manner as AV data recorded on a standard DVD (col. 15 lines 34 – 45; col. 16 lines 15 – 17).

28. Kanazawa fails to specifically teach “the AV data is displayed in a display window defined by the markup document” as claimed. However, admitted prior art from Applicant's disclosure teaches:

the interactive mode is a mode in which the AV data is displayed in a display window defined by the markup document (§13);

the apparatus is selectively operable in the interactive mode in which the AV data is displayed in the display window defined by the markup document, and a non interactive video mode in which the AV data is displayed in the same manner as AV data recorded on a standard DVD (§13).

29. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because the admitted prior art teaches known elements usable with the teachings of Kanazawa that produce predictable results.

30. Claims 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Jones as applied to claims 1 and 9 above, and further in view of Ferguson (US 20020178232 A1).

31. As to claim 10, Kanazawa teaches disconnecting because the data is no longer needed after display of resources is complete (Fig. 8, S47), but fails to specifically teach "the content decoder outputs a release signal" as claimed. However, Ferguson teaches outputting a release signal to the buffer manager indicating that the markup document that was transferred from the buffer to the content decoder in response to the reproduce signal is not in use (¶ 63). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Kanazawa indicates a need to properly close and remove resources that are no longer needed (Fig. 8, S47) and Ferguson teaches additional details about de-allocating resources.

32. As to claim 11, Kanazawa teaches disconnecting because the data is no longer needed after display of resources is complete (Fig. 8, S47), but fails to specifically teach “the content decoder outputs the release signal” as claimed. However, Ferguson teaches the content decoder outputs the release signal to the buffer manager (¶63).

33. As to claim 12, Kanazawa teaches a content decoder to interpret the markup document (col. 11 lines 11 – 15) and disconnecting because the data is no longer needed after display of resources is complete (Fig. 8, S47), but fails to specifically teach “the buffer manager deletes the markup document” as claimed. However, Ferguson teaches the buffer manager deletes the markup document from the buffer in response to a discard signal (¶63).

34. As to claim 13, Kanazawa and Ferguson fail to specifically teach “the content decoder generates the discard signal using a discard API” as claimed. However, Jones teaches performing buffering operations in response to signals and with the use of an API (¶66, 68).

35. Claims 14 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Jones as applied to claim 2 above, and further in view of Ronning et al. (US 20030212992 A1; “Ronning”).

36. As to claim 14, Kanazawa fails to specifically teach a "progressNameOfFile API" as claimed. However, Ronning teaches the content decoder generates the report signal using a progressNameOfFile API to determine a file name of the markup document currently being preloaded (§90). It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because Kanazawa teaches downloading files and Ronning teaches elements that can be used with downloading data as taught by Kanazawa to produce predictable results.

37. As to claim 15, Ronning teaches the content decoder generates the report signal using a progressLengthOfFile API to determine how much of the markup document currently being preloaded has been preloaded (§90).

38. As to claim 16, Ronning teaches the content decoder generates the report signal using a remainLengthOfFile API to determine how much of the markup document currently being preloaded is yet to be preloaded (§90).

39. As to claim 17, Ronning teaches the content decoder generates the report signal using a totalLoadingSize API to determine a total loading size of the markup document to be preloaded (§90).

40. As to claim 18, Ronning teaches the content decoder generates the report signal using a remainLoadingSize API to determine how much of a total loading size of the markup document has yet to be preloaded (§90).

41. Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Jones and Applicant's admitted prior art.

42. As to claim 23, Kanazawa teaches an apparatus for recording and/or reproducing audio video (AV) data using a markup document in an interactive mode selected by a user of the apparatus, comprising:

an AV buffer to buffer the AV data (col. 15 lines 34 – 56; col. 17 lines 31 – 38);

an AV reproduction engine to decode the AV data (col. 15 lines 34 – 56; col. 17 lines 31 – 38);

an enhanced navigation (ENAV) buffer to preload the markup document before the apparatus reproduces any of the AV data to enable the apparatus to reproduce the AV data in the interactive mode selected by the user (col. 15 lines 34 – 56; col. 17 lines 31 – 38); and

an I/O manager to obtain the markup document (col. 15 lines 34 – 56; col. 17 lines 31 – 38).

43. Kanazawa fails to teach the claimed details about buffering state information. However, Jones teaches an ENAV engine to identify buffering state information of the

markup document and decode the markup document, the buffering state information being used by the apparatus in reproducing the AV data in the interactive mode selected by the user (¶66, 68).

44. Kanazawa also fails to teach the user selects the interactive mode *before* the apparatus reproduces AV data. However, Applicant's arguments filed 14 November 2008 argue that this feature is supported by Figure 12 showing the loading of the markup documents begins before loading of the AV data (remarks filed 11/14/2008, p. 35, ¶3 lines 3 – 7). Figure 2 of Applicant's disclosure also shows the loading of the markup documents begins before loading of the AV data and Figure 2 is labeled as prior art. Therefore, an interactive mode selected by a user of the apparatus before the apparatus reproduces any of the AV data is taught by Applicant's admitted prior art.

45. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Jones and Applicant's admitted prior art as applied to claim 23 above, and further in view of Silberschatz (see PTO-892 mailed 12 December 2006).

46. As to claim 24, Kanazawa teaches obtaining the markup document, but fails to specifically teach blocked I/O and unblocked I/O. However, Silberschatz teaches the I/O manager uses a blocked I/O method to obtain data from a data storage medium (page 418 ¶5) and an unblocked I/O method to obtain data from a network (page 418 ¶2). It would have been obvious to one of ordinary skill in the art at the time Applicant's

invention was made to combine these teachings because Kanazawa teaches what data needs to be transferred and Silberschatz teaches how to implement the data transfers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN PRICE whose telephone number is (571)272-4196. The examiner can normally be reached on 8:30am - 5:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NP

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192